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Using an accompanying, specified film that consists of 10-second pictures separated by blanks, the learner can, with the 203-step, self-correcting questions and answers provided in this program, come to understand the fundamentals of lighting in photography. The learner should, by the end of the program, be able to describe and identify the effects which amount and direction of light have upon pictures and to describe how these can be controlled when taking pictures in various lighting conditions. (CG)

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LIGHTING FUNDAMENTALS

MONOGRAPH #13

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Department of Educational Psychology
Arizona State University
Tempe, Arizona

CLASSROOM LEARNING LABORATORY

experimental analyses of student behavior

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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L I G H T I N G F U N D A M E N T A L S

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Lighting Fundamentals

Introduction and Directions

Certain photographs are more attractive than others because effective lighting techniques were employed by the photographer. Expensive equipment is not needed to use light effectively. After all, the same lighting principles apply to the most complex and simplest cameras.

This program will instruct you in some lighting fundamentals that can be employed when using a simple camera to make pictures more attractive. When you complete this program, you will be able to describe and identify the effects which the amount of light and the direction of light have on pictures. You will also be able to describe how you can control the amount and direction of light when taking pictures in various lighting situations. Before you will be able to do that, you have to know how to use this program. Here is how you go about receiving instruction on "Lighting Fundamentals":

1. Use Film #21. You will have to periodically view pictures contained in this film as you proceed through this program. Each picture will appear on the screen for about 10 seconds. A short length of blank film separates each picture from the one that follows.

2. This program will tell you what to look for in a picture before it tells you to view the picture. Read what the program tells you to look for in a picture <u>before</u> viewing the picture on the film.

3. Turn on the projector and look at the picture the program told you to look at <u>for about 5 seconds</u>.

4. Turn off the projector.

5. Return to the program. It will ask you questions about the picture you just viewed. Answer all of the questions for a particular picture. Then stop. Compare your answers with those given in the program.

6. Project the remaining 5 seconds of the picture. If you answered any of the questions incorrectly, try to determine why you missed them as you project the remaining film.

7. Turn off the projector when you have completed projecting the remaining five seconds of a picture. Return to the program and repeat this process for the next picture.

Remember: Always find out what to look for before you project the film.

The first picture you will see shows two pictures of a monastery. Determine whether light is falling on the monastery from the same or different directions by looking at the shadows in each photograph.
Now look at picture one for 5 seconds.

1. What was the subject of the snapshots?

a monastery
*

2. What do you look for in a picture to determine the direction of light?

shadows
*

3. Was light falling on the subject of each snapshot from the same or different directions?

different directions
*

4. Did the monastery look the same when light fell on it from different directions?

no
*

5. The snapshots of the monastery illustrate the fact that when light falls on a subject of a photograph from different directions the subject will look _____.

different
*

6. When the direction of light falling on a subject is changed, the appearance of the subject will _____.

change.
*

7. One of the things that influences the appearance of a picture is _____.

the direction of light
*

Now run the film until you reach the black segment and try to correct any wrong ideas which you may have had. If you had no trouble with frames 1-7, continue with the next frame.

In the next picture, notice the shadows and the direction light is falling on the subjects.

8. Were the shadows cast by the subjects determined by the direction of light falling on the subjects?

yes
*

9. If the direction of light determines the dark or shaded areas of a picture, what determines the lighter areas of a picture?

the direction of light

*

10. The dark areas of a picture are called a picture's dark side. The dark side of a picture are those areas in a picture
    a) on which light is falling.
    b) which are in the shadows.

b) which are in the shadows.

*

11. Those areas of a picture in the shadows are called a picture's dark side. Those areas of a picture on which light is falling are called a picture's _____.

light side.

*

12. What are the light and dark sides of a picture?

The light side of a picture consists of those areas on which light is falling. The dark side of a picture consists of those areas that are in the shadows.

*

13. What determines the light and dark sides of a picture?

the direction of light

*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 8-13, proceed to 14.

14. Notice the light and dark sides of the next picture. Also notice the details appearing in each side. Pay particular attention to the man's face. Now look at picture 3 for 5 seconds.

    Pictures can have 2 sides. These are ____ and _____.

a light side and a dark side.

*

15. Which part of the man's face showed the least detail, the part on the light or dark side?

the part on the dark side.

*

16. If you wanted people to see the details on your subject, on which side of the picture would you place the details?

the light side.

*

17. On which side of a picture would you place details you did not want emphasized?

the dark side.

*

18. The direction of light determines what details are seen on a picture because it determines ____.

the light and dark sides of a picture.

*

19. What are the light and dark sides of a picture?

The light side of a picture is those areas on which light is falling.
The dark side of a picture is those areas which are in the shadows.

*

20. The subject of a picture will look different when the direction of light is changed because different _____ will be shown.

details.

*

21. The light and dark sides, details, and the general appearance of a picture is determined by

the direction of light

*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 14-21, proceed to 22.

22. Notice the portion of the subject that faced the camera in the next picture. Look at the picture for 5 seconds.

Those parts of a subject facing the camera are called the front of a subject. Which part of each girl was facing the camera?

the back of one and the front of the other

*

23. Those parts of a subject facing the camera are called the _____ of a subject.

front
*

24. The front of a subject always faces the _____.

camera.
*

25. If the subjects were both sideways, what part of them would be the front?

their sides.
*

26. Can any part of a subject be the front?

yes
*

27. What is the front of a subject?

those parts of the subjects facing the camera
*

28. Areas of light and shadow are called the light and dark sides of a _____.

picture.
*

29. The part of a subject facing the camera is called _____.

the front of the subject.
*

30. You will have to look closely at the pictures that follow in order to determine the direction of light. You determine the direction of light in a picture by looking for _____.

shadows.
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 22-30, proceed to 31.

31. Determine the direction of light in the next picture. Notice the shadow behind the girl. Now look at this picture for 5 seconds.

Light can fall on the subjects of a photograph from these directions:
the front,
the sides,
the rear.
From which direction was light falling on the subject of the picture?

the front
*

32. The two sides of a picture are?

the light side and the dark side.
*

33. On which side of a picture do you place details you want seen?

the light side
*

34. What is the light side of a picture?

those areas of a picture on which light is falling.
*

35. To place details on the front of a subject on the light side of a picture, light must fall on the subject from the _____.

front
*

36. What is the front of a subject?

the parts of a subject facing the camera.
*

37. The girl's body cast a shadow. Did details on the girl's face cast a shadow?

no
*

38. Details on the front of a subject will not cast shadows when light falls on a subject from the _____.

front.
*

39. What determines what details are shown in a picture?

the direction of light
*

40. Where on a subject will details be shown if light falls on the subject from the front?

the front
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 31-40, proceed to 41.

41. In the next picture notice the direction of light and the shadows on the front of the girls. Look at the picture for 5 seconds.

From which direction was light falling on the girl?

the rear

*

42. Two sides of pictures are _____ and _____.

the light side and the dark side.

*

43. On which side of a picture do you place details to conceal them?

the dark side.

*

44. What is the dark side of a picture?

those areas in the shadows.

*

45. What is the front of a subject?

those parts of the subject facing the camera.

*

46. Were details on the front of the subject on the dark side of the picture?

yes

*

47. From which direction would you have light fall on a subject to conceal frontal details?

the rear

*

48. The girl's body cast a shadow. Did details on the girl's face cast a shadow?

no

*

49. Frontal details cannot cast shadows when light falls on a subject from _____.

the rear.

*

50. What determines what details will or will not be shown in a picture?

the direction of light

*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 41 to 50, proceed to 51.

51. Determine the direction of light in the next picture. Now look at this picture for 5 seconds.

From which direction was light falling on the subject of the picture?

the side
*

52. Because light fell on the girl from the side, her nose cast a _____.

shadow.
*

53. To show details, you place them on the light side of a picture. In addition to this, you would direct light so details cast shadows if you want them emphasized. Was the girl's nose emphasized?

yes
*

54. Since the girl's nose cast a shadow, it was ____.

emphasized.
*

55. To emphasize details you must cause them to _____.

cast shadows.
*

56. For details on the front of a subject to cast shadows, light must fall on the subject from the _____.

side.
*

57. What are the two sides of a picture?

the light side and the dark side.
*

58. On which side of a picture do you plan details you want shown?

the light side.
*

59. When you want details seen, <u>but</u> <u>not</u> emphasized, you should place them on the light side of a picture and direct light so that details do not _____.

cast shadows.
*

60. From which direction must light fall on a subject so that frontal details are on the light side of a subject but do not cast shadows?

the front
*

6. From which direction must light fall on a subject so that frontal details are on the dark side of a subject and do not cast shadows?

the rear
*

62. What details on a subject will cast shadows when light falls on the subject from the side?

frontal details or details on the front of a subject.
*

63. What is the front of a subject?

the parts of a subject facing the camera.
*

64. Details on the front of a subject are shown, but not emphasized when light falls on a subject from the _____.

front
*

65. Details on the front of a subject are concealed when light falls on a subject from the _____.

rear.
*

66. From which direction must light fall on a subject to emphasize frontal detail?

the side
*

67. What determines what details are <u>shown</u> and <u>emphasized</u> in a picture?

the direction of light
*

68. What will light falling on a subject from the side do?

emphasize frontal detail.
*

69. What will light falling on a subject from the front do?

show frontal detail without emphasizing it
*

70. What are the light and dark sides of a picture?

The light side consists of those areas of a picture on which light falls. The dark side consists of those areas in the shadows.
*

71. From which directions can light fall on the subject of a picture?

the front, the sides, the rear.
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 51 to 71, proceed to 72.

72. Notice the source of light in the next picture. Look at it for 5 seconds.

What was the source of light shown in the picture?

the sun
*

73. Since the sun is part of nature, light from the sun is called _____ light.

natural
*

74. When flowers are made by humans, they are called artificial. Light sources made by humans are called _____.

artificial.
*

75. There are two types of light. They are _____ and _____.

natural light and artificial light.
*

76. What is natural light?

light from the sun
*

77. What is artificial light?

light from man-made sources
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 72 to 77, proceed to 78.

78. Notice the subjects and light source in the next picture is exactly like that which you saw in the previous picture. Look at the next picture for 5 seconds.

The light and dark sides of a picture, the details shown and emphasized, the general appearance of a picture, is determined by _____.

the direction of light.
*

79. The direction of light determines the general _____ of a picture.

appearance or looks
*

80. By controlling the direction from which light falls on a subject, you can make the subject look different. One way to control the direction light falls on a subject is to move the light source. What was the light source in the picture?

the sun
*

81. Since you cannot move the sun, you cannot move the light source when you use natural light. You can move a light source only when you use _____.

artificial light.
*

82. Another method of controlling the direction from which light falls on a subject is to move the subjects. Could you move <u>all</u> of the subjects in the picture?

no
*

83. Even though you cannot move all the subjects or the light source in the picture, you could still control the direction from which light falls on the subjects by _____ the camera.

moving
*

84. Light will fall on a subject from different directions when you move one or more of three things. These are _____, _____, and _____.

the camera, the subject, and the light source.
*

85. Can you move more than one of these things to control the direction of light when taking any one picture?

yes
*

86. The only time you cannot move the light source is when you use what type of light?

natural light
*

87. Will light fall on a subject from different directions at different times of the day?

yes
*

88. Three ways to control the direction of light are _____, _____, and _____.

repositioning the subject
repositioning the camera
repositioning the light source
*

89. Suppose you were using natural light to take a picture and you wanted to take the picture without moving the subject or camera, would it pay to take the picture at a different time of day?

yes
*

90. What could you do in a natural lighting situation to control the direction of light when you do not want to move the camera, and do not desire, or are not able, to move the subject?

take the picture at a different time of day.
*

91. You are taking a picture of a girl in natural light. Light is falling on her face from the front. How could you emphasize the <u>details</u> on her face without moving the camera or without waiting to take the picture later?

Move her so that light will fall on her face from the side, making the features of her face cast shadows.
*

92. Two types of light are _____ and _____.

natural light and artificial light.
*

93. What is natural light?

Light from the sun
*

94. What is artificial light?

Light from man-made sources
*

Run the film until you reach another black segment. If you have no difficulites to correct in frames 78-94, proceed to 95.

95. The next picture shows two snapshots of a dog. Notice the amount of light and the direction of light in each snapshot. Look at it for 5 seconds.

Was light falling on the subject of each snapshot from the same direction?

yes
*

96. There are two sides to any picture. They are _____ and _____. (Name them)

the light side and the dark side.
*

97. What is the light side of a picture?

Those areas of a picture on which light is falling.
*

98. What determines the light and dark sides of a picture?

The direction of light.
*

99. Three ways to control the direction of light are _____, _____, and _____.

repositioning the camera
repositioning the subject
repositioning the light source
*

100. A picture's appearance is determined by the amount of light on its dark side. What else determines a picture's appearance?

the direction of light
*

101. Did each snapshot have a light and dark side?

yes
*

102. Was the amount of light on the dark side of each snapshot the same?

no
*

103. Since the dark sides of each snapshot had different amounts of light, the snapshots looked _____.

different
*

104. On which side of a picture would you change the amount of light to make it appear different?

the dark side
*

105. What, in addition to the direction of light, affects the general appearance of a picture?

The amount of light on the dark side of a picture.
*

106. Tell where the dark side of a picture would be if light fell on the subject from the following directions:
   a) the front
   b) the rear
   c) one side

a) the rear
b) the front
c) the other side
*

107. Two lighting variables that affect the general appearance of a picture are _____ and _____.

the direction of light and the amount of light on the dark side of a picture.
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 94 to 107, proceed to 108.

108. The next picture shows two snapshots of a car. Light is falling on the car in each snapshot from the same direction. Notice the amount of light in each picture. Look at the picture for 5 seconds.

   Light was falling on the subject of each snapshot from the same direction. Did one snapshot have more light on its dark side than the other one?

yes
*

109. Fill-in light is used to fill in shadows. Fill-in light is always added to the _____ side of a picture.

dark
*

110. Light added to the dark side of a picture is called _____ light.

fill-in
*

111. Since fill-in light fills in shadows, it can only be added to which side of a picture?

the dark side
*

112. Do you add fill-in light to the dark side of a picture before or after the dark side of the picture has been determined?

after
*

113. Will details on the dark side be easier or harder to see if you add fill-in light?

easier
*

114. First, determine which is the dark side of a picture by looking at the direction of light. Then the degree to which details on the dark side of the picture are easy or hard to see will be determined by the amount of _____.

fill-in light
*

115. If you wanted to make details on the dark side of a picture easier to see, what could you do?

add fill-in light.
*

116. By adding fill-in light to the dark side of a picture, you make the _____ easier to see.

details
*

117. On which side of a picture do you place details you want seen?

the light side
*

118. What must you do to the dark side of a picture to make details on the dark side of a picture easier to see?

add fill-in light
*

119. Would you add fill-in light to the dark side of a subject if you wanted to de-emphasize details on the dark side?

no
*

120. To conceal details you should avoid using _____.

fill-in light
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 108 to 120, proceed to 121.

121. Notice the type of light, and the dark side of the picture, particularly around the girl's face and around the trees. Notice the direction of light falling on the girl and trees. Look at the picture for 5 seconds.

The picture showed one girl taking a snapshot of another. Was the snapshot being taken in natural light or artificial light?

natural light
*

122. Since natural light was falling on the trees and on the girl from the same direction, you would expect them to be equally dark. Were the girl and the trees equally dark?

no
*

123. The girl whose picture was being taken appeared lighter than the trees because the girl taking the picture was using flash. Is flash a form of natural or artificial light?

artificial light
*

124. Was fill-in light being added to the dark side of the girl whose picture was being taken?

yes
*

125. In a natural lighting situation, artificial light can be used to add _____ light.

fill-in
*

126. What type of light could you add to the dark side of a subject for fill-in when you take pictures in natural light?

artificial light
*

127. Toward which side of a subject would you point the source of artificial light to add fill-in light?

the dark side
*

128. Would you use artificial light in addition to natural light if you did not want to show details on the dark side of a subject?

no
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 121 to 128, proceed to 129.

129. Notice the surfaces of the subjects in the next picture and the type of light. Look at it for 5 seconds.

Light is reflected from light surfaces and absorbed by dark ones. Was most of the surface area in the picture light or dark?

light
*

130. The picture was taken in natural light. Was natural light reflected onto the dark side of the subject?

yes
*

131. In order to reflect natural light onto the dark side of a subject, you must place the subject near what kind of surface?

a light surface
*

132. One was to add fill-in light to the dark side of a subject in a natural lighting situation is to use artificial light. Another way to add fill-in light to the dark side of a subject in a natural lighting situation is to _____ natural light from light surfaces.

reflect
*

133. One way of adding <u>fill-in</u> light to the dark side of a subject in a natural lighting situation is to reflect natural light from light-colored surfaces onto the dark side of a subject. What is the other way?

Use artificial light in addition to natural light.
*

134. If you did <u>not</u> want to add fill-in light to the dark side of a subject, next to what kind of surface would you place them?

a dark one
*

135. Two ways of adding fill-in light to the dark side of a subject in a natural lighting situation are _____ and _____.

Using artificial light in addition to natural light.
Reflecting natural light from light surfaces onto the dark side of the subject.
*

136. Is it possible to use artificial light and reflected natural light as fill-in light at the same time?

yes
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 129 to 136, proceed to 137.

137. Look at the situation depicted in the next picture. Determine whether a natural or artificial lighting situation is being employed to take the lady's picture. Look at the picture for 5 seconds.

An artificial lighting situation is one that does not employ sunlight. What type of lighting situation was shown in the picture?

one that used artificial light.
*

138. What is an artificial lighting situation?

One that uses artificial light without employing sunlight.
*

139. Natural light can be reflected; _____ light can also be reflected.

artificial.
*

140. If you were taking a picture of a subject using artificial light only, one way you could add fill-in light to the dark side of your subject would be to _____ artificial light from light surfaces.

reflect
*

141. One way to add fill-in light in a natural lighting situation is to use artificial light in addition to natural light. Could you use additional artificial light for fill-in light in an artificial lighting situation?

yes
*

142. One way to add fill-in light to the dark side of a subject in an artificial lighting situation is to use additional artificial light. What is the other way?

reflect the artificial light from light colored surfaces.
*

143. If additional artificial light sources were used to add fill-in light in an artificial lighting situation, towards which side of the subject would they be pointed?

the dark side

*

144. Two ways of adding fill-in light to the dark side of a subject in an artificial lighting situation are _____ and _____.

1) Use additional artificial light;
2) reflect artificial light from light surfaces onto the dark side of a subject.

*

145. Is it possible to use additional artificial light and reflected artificial light as fill-in light at the same time?

yes

*

146. List three ways you could add fill-in light to the dark side of a subject in a natural lighting situation.

1) reflect natural light
2) add artificial light
3) use both 1) and 2) at same time

*

147. List three ways you could add fill-in light to the dark side of a subject in an artificial lighting situation.

1) use additional artificial light
2) reflect artificial light
3) both 1) and 2) at the same time.

*

148. What two factors determine the general appearance of a picture?

1) the direction of light, and
2) the amount of light on the dark side of a picture.

*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 137-148, proceed to 149.

149. Notice the direction of light and the details on the front of the subjects in the next picture. Now look at it for 5 seconds.

Did the picture show silhouettes?

yes
*

150. From which direction was light falling on the subjects of the picture?

the rear
*

151. For details to be concealed, they should be placed in the _____.

shadows or dark
*

152. Would you use fill-in light to create a silhouette effect?

no
*

153. To create a silhouette effect, you not only avoid additing fill-in light to the dark side of the subject, but also try to reduce any _____ already on the dark side.

light (or reflected light)
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 149 to 153, proceed to 154.

154. The next picture illustrates how to create a silhouette effect. Notiec the direction of light and the position of the subject in relation to the building and the person holding the camera. Look at the picture for 5 seconds.

Details are concealed when they are placed in the shadows. Details are further concealed when other objects cast _____ on them.

shadows.
*

155. Frontal details on a subject are reduced when light falls on the subject from the _____, because the details become part of the _____ side of a picture.

rear, dark
*

156. Frontal details are further concealed when other objects _____.

cast shadows on them.

*

157. This further reduces light on the _____ side.

dark

*

158. In the picture, were objects placed in such a relationship to the subject that they cast shadows on the front of the subject?

yes

*

159. A silhouette effect is crated by concealing frontal details. What two things do you do to conceal frontal detail?

1) have light fall on a subject from the rear.
2) have other objects cast shadows over the front of the subject.

*

160. What is the front of a subject?

the part of the subject facing the camera.

*

161. From which direction must light fall on a subject to conceal frontal detail?

the rear

*

162. What kind of an effect is created when light falls on a subject from the rear and other objects cast shadows on the front of the subject?

a silhouette effect

*

163. How do you create a silhouette effect?

Have light fall on subject from rear and have other objects cast shadoes on the subject's front.

*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 154 to 163, proceed to 164.

164. Look at the next picture for 5 seconds. Notice the clouds and the softness of the shadows on the girl's face.

The special natural lighting condition shown in the picture is known as hazy sun. In order to have the special natural lighting condition known as hazy sun, the sky must be partially covered by _____.

clouds.
*

165. If shadows are still present in a hazy sun condition, would the rules regarding the direction of light and amount of fill-in light apply?

yes
*

166. A special natural lighting condition occurs when the sky is partially covered with clouds. This condition is known as _____.

hazy sun
*

167. Are shadows softer in a hazy sun condition?

yes
*

168. When does a hazy sun condition exist?

when the sky is partially covered with clouds.
*

Run the film until you reach another black segment. If you have no difficulties to correct in frames 164 to 168, proceed to 169.

169. Look at the next picture for 5 seconds. Notice the clouds and lack of shadows.

The special natural lighting condition shown in the picture is called cloudy bright. For a special natural lighting condition known as cloudy bright to exist, the sky must almost be completely covered by _____.

clouds.
*

170. There are no shadows in a cloudy bright condition because light is so diffused by the clouds that it will fall on all areas of a picture
a) equally
b) unequally

a) equally
*

171. Since there are no shadows in a cloudy bright condition, the dark side of a picture is
a) increased
b) eliminated

b) eliminated
*

172. Since there are no shadows present in a cloudy bright condition, would the rules regarding the light and dark sides of a picture and amount of fill-in light apply when taking pictures in this condition?

no
*

173. If light is diffuse in a cloudy bright condition, could you still take a picture successfully when that condition exists?

yes
*

174. Two special natural lighting conditions are _____ and _____.

hazy sun and cloudy bright
*

175. Which special natural lighting condition gives soft shadows?

hazy sun
*

176. When does a hazy sun condition exist?

when the sky is partially covered with clouds
*

177. When does a cloudy bright condition exist?

when the sky is almost completely covered with clouds.

178. In which special natural lighting condition do none of the principles for the control and effect of light apply?

cloudy bright
*

179. In which of the special natural lighting conditions do all the principles regarding the effect and control of light apply?

hazy sun
*

The frames that follow are terminal frames. You may wish to run the entire film again as a short review before you answer them, or you may proceed through the program.

180. What determines the degree to which details are shown on the dark side of a picture?

the amount of fill-in light
*

181. What determines the light and dark sides of a picture?

the direction of light
*

182. What is the light side of a picture?

those areas on which light is falling
*

183. What is the dark side of a picture??

those areas in the shadows
*

184. On which side of a picture do you place those details which you want to be seen easily?

on the light side of a picture.
*

185. What would you do to make details on the dark side of a picture seen more easily?

add fill-in light
*

186. How would you add fill-in light to the dark side of a picture in a natural lighting situation?

1) add artificial light
2) reflect natural light
3) both 1) and 2)
*

187. What is fill-in light?

light added to the dark side of a picture
*

188. How would you add fill-in light to the dark side of a picture in an artificial lighting situation?

1) use more artificial light
2) reflect artificial light
3) both 1) and 2)
*

189. From what kind of surface is light reflected?

a light-colored one
*

190. Two types of light are _____ and _____.

natural and artificial
*

191 What three things can you do to control the direction of light?

reposition the subject
reposition the camera
reposition the light source
*

192. In a natural lighting situation how could you control the direction of light without moving the subject or camera?

by taking the picture at a different time of day
*

193. What does side light do?

emphasizes frontal detail
*

194. What does front lighting do?

shows frontal details without emphasizing them
*

195. How do you create a silhouette effect?

have light fall on the subject from the rear while at the same time placing the subject in such a relationship with other objects that they cast a shadow on the subject's front
*

196. What are two special natural lighting conditions?

hazy sun and cloudy bright
*

197. When does a hazy sun condition exist?

when the sky is partially covered with clouds.
*

198. In which special natural lighting condition do none of the rules developed in this program apply?

cloudy bright
*

199. Which special natural lighting condition gives you soft shadows?

hazy sun
*

200. When does a cloudy bright condition exist?

when the sky is almost completely covered with clouds.

*

201. In which special natural lighting condition do all rules discussed in this program apply?

hazy sun

*

202. Is there enough light in a cloudy bright condition to take a picture?

yes

*

203. What determines the general appearance of a picture?

the direction of light and the amount of light on the dark side of a picture

*